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Name:

Chapter 10 Quiz: Cell Cycle

Date: 3/1Period: 7

Ms. Capone

Part A. Matching: Match the event description with the appropriate term of the cell cycle phase it occurs in. Answer choices may be used once, more than once, or not at all.

C D ~~X~~ DNA is replicated

A 2. Chromatids migrate to opposite poles of the cell.

h B ~~X~~ Nuclear envelope re-forms around each new set of genetic material.

E 4. Chromosomes line up in the middle of the cell.

C G ~~X~~ Cell growth and organelles are synthesized (not DNA).

F 6. Chromatin condenses into chromosomes.

F A ~~X~~ Centrioles move to opposite poles

B 8. Cytoplasm divides

H 9. Chromosomes un-condense into threadlike chromatin.

F E ~~X~~ Nuclear envelope disintegrates

- a) Anaphase
- b) Cytokinesis
- c) G₁ of interphase
- d) G₂ of interphase
- e) Metaphase
- f) Prophase
- g) S of interphase
- h) Telophase

Part B. Multiple Choice: Choose the letter that best answers the question and place it on the line provided.

B 11. Normal mitotic cell division results in each daughter cell having

- a) Half the number of chromosomes as the parent cell
- b) The same number and kinds of chromosomes as the parent cell
- c) The same number but different kinds of chromosomes as the parent cell
- d) Twice the number of chromosomes as the parent cell

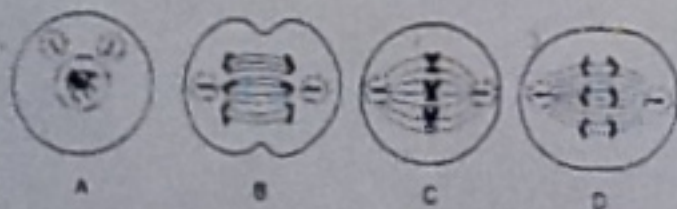
A 12. Mitosis occurs in all life cycle events below EXCEPT:

- a) Sex cell production
- b) Wound healing
- c) Body cell replacement
- d) Growth

B C 13. All of the following are problems that growth causes for cells EXCEPT:

- a) DNA overload
- b) Excess surface area
- c) Difficulty obtaining nutrients
- d) Difficulty expelling waste

B 14. Which is the correct sequence for the stages of mitotic cell division represented by the diagrams below?



- a) A → B → C → D
- b) A → C → D → B
- c) B → A → D → C
- d) B → C → D → A

A 15. What is the role of spindle fibers during mitosis?

- a) Help separate sister chromatids
- b) Break down the nuclear envelope
- c) duplicate the DNA
- d) divide the cell in half

Part C. Short answer: Fill in the blank with the appropriate term that correctly completes the sentence.

16. Chromatin is made up of DNA tightly wrapped around histone proteins. ✓
17. Cytokinesis in plant cells is marked by the formation of a cell plate. ✓
18. Human body cells contain 46 chromosomes. ✓
19. centrioles form and move to opposite sides of the cell and are responsible for the production of spindle fibers. ✓
20. The center of a chromosome is called the centromere and holds the sister chromatids together. ✓